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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,155	08/22/2001	Eberhard Holl	10191/1898	9226

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EXAMINER

PEZZLO, BENJAMIN A

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 08/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/935,155

Applicant(s)

HOLL

Examiner

Benjamin A Pezzlo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/18/03
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 5-10, 12 and 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 11, 14-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- ☐ Interview Summary (PTO-413) Paper No(s). _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kubota et al. (US 4717207).

Kubota et al. disclose a method for controlling a wheel brake of a vehicle, the method including a determining a road slope (see col. 5 lines 39-32; col. 6 lines 51-59; and Fig. 10 step 104: vehicle tilt indicating road slope), determining whether a parking brake is engaged (see col. 10 lines 36-42), maintaining a braking force at a wheel independently of an extent of a brake pedal actuation (see col. 7 lines 5-7: “the brake fluid pressure holding condition is maintained even when the brake pedal is not operated by the driver” i.e. brake pressure is held even after the driver removes his/her foot from the pedal), in at least one operating state with the parking brake engaged, if the road slope points in a direction of a future travel direction of the vehicle (see col. 4 lines 44-45: “maintains the brake fluid pressure at that time during stopping on the ascending slope”; also see col. 6 lines 42-59: the sensor determines if the vehicle is in “first” or “reverse” gear and then determines road slope as an angle “theta”, which is compared to a predetermined angle “theta-sub-not” to determine whether to initiate braking”; see also col. 9 lines 62-68 and col. 11 lines 34-46 for an alternative embodiment for determining whether road slope points in a direction of a future travel direction), reducing the braking force for at least one condition (see

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col. 8 line 65 to col. 9 line 10: drive torque necessary to move the vehicle up the slope provides the condition for reducing the braking force).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 11, 15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota et al. (US 4717207) in view of Yano (US 6332654).

Kubota et al. disclose a method for controlling a wheel brake of a vehicle, the method including a determining a road slope (see col. 5 lines 39-32; col. 6 lines 51-59; and Fig. 10 step 104: vehicle tilt indicating road slope), determining whether a parking brake is engaged (see col. 10 lines 36-42), maintaining a braking force at a wheel independently of an extent of a brake pedal actuation (see col. 7 lines 5-7: "the brake fluid pressure holding condition is maintained even when the brake pedal is not operated by the driver" i.e. brake pressure is held even after the driver removes his/her foot from the pedal), in at least one operating state with one of the brake pedal depressed (see col. 6 lines 60-66: specifically, "the vehicle is in the stopped condition on the slope" i.e. the brake is depressed) and the parking brake engaged, if the road slope points in a direction of a future travel direction of the vehicle (see col. 4 lines 44-45: "maintains the brake fluid pressure at that time during stopping on the ascending slope"; also see col. 6 lines 42-59: the sensor determines if the vehicle is in "first" or "reverse" gear and then determines road slope

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as an angle “theta”, which is compared to a predetermined angle “theta-sub-not” to determine whether to initiate braking”; see also col. 9 lines 62-68 and col. 11 lines 34-46 for an alternative embodiment for determining whether road slope points in a direction of a future travel direction), reducing the braking force for at least one condition (see col. 8 line 65 to col. 9 line 10: drive torque necessary to move the vehicle up the slope provides the condition for reducing the braking force).

Kubota et al. fail to disclose determining whether brake pedal is depressed. Yano discloses that when it comes to control feedback for hill holding one may interchangeably use brake pedal depression or vehicle speed, particularly, the vehicle speed being zero, see col. 13 lines 31-50. Accordingly, it would have been obvious to one of ordinary skill in the art to which the invention pertains at the time the invention was made to have provided a hill holder according to Kubota et al. with determining whether the brake pedal is depressed according to the teachings of Yano in order to more effectively execute the hill holding function.

Re claim 2, see col. 10 lines 15-16: a determination is made if the vehicle speed is zero.

Re claim 3, see col. 8 line 65 to col. 9 line 10, discussed above, if the driver makes a standing start, and sufficient torque is generated then braking force is reduced according to the disclosed method.

Re claim 4, if any one of the criterion of claim 3 is satisfied, for example, if the driver makes a standing start, then normal operation of the brake resumes. In this scenario, claim 4 reads on a conventional brake, i.e. releasing the brake pedal releases the brakes.

Re claim 11, see col. 5 lines 45-60.

Re claims 15 and 17, note that Kubota et al. determines whether the parking brake is engaged after determining vehicle speed.

Response to Arguments

5. Applicant's arguments filed 18 April 2003 have been fully considered but they are not persuasive.

Applicant argues that Kubota et al. fail to disclose determining whether a brake pedal is depressed. To the extent that determining the vehicle speed being zero fails to inherently provide support for the brake pedal being depressed, Yano teaches the equivalence between the brake pedal being depressed and the vehicle being stopped or in the process of stopping under the action of the service brake.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin A Pezzlo whose telephone number is (703) 306-4617. The examiner can normally be reached on M-F 9-5.

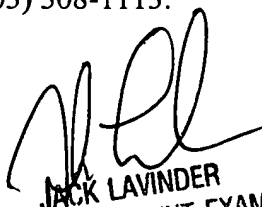
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on (703) 308-3421. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 for regular communications and (703) 872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

BAP

August 6, 2003

BAP
8/6/03


JACK LAVINDER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600